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10/806,032	03/22/2004	Charles H. Bianchi	100.760US03	1007
34206 7590 03/24/2008 FOGG & POWERS LLC 10 SOUTH FIFTH STREET SUITE 1000 MINNEAPOLIS, MN 55402				
EXAMINER SATKIEWICZ, THOMAS E				
ART UNIT 4183		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@fogglaw.com

Office Action Summary

Application No.

10/806,032

Applicant(s)

BIANCHI ET AL.

Examiner

THOMAS E. SATKIEWICZ

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 12/21/2004 7/25/2007
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the apparatus (Claims) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Fig 1 doesn't show the location of the apparatus of Claim 1. Fig 2 and 3 shows a Coupler, Cable Access Point, Power Insert, Head End Access Point, and LAN Hub, but no apparatus as described in the Claims. Fig 4 shows a Cable Access Point, Head End Access Point, and LAN Hub, but no apparatus as described in the Claims. Fig 5 shows a Head End/Central Office/ Service Node, Standard Plant/Cell Site, and Subscriber Site, but no apparatus as describe in the claims. Fig 6 and 7 show no apparatus as described in the claims. Fig 2, 3, and 4 show an item (Prime Power), doesn't show where the source. Also the specification doesn't explain the source of the Prime Power. Fig 6 states WLAN Bridge, so is Fig 6 a WLAN Bridge or the Head End Access Point (16).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "18" has been used to designate LAN HUT (Fig 1), Network Help (Fig 5), and HECU Server (Fig 5). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. With regards to Claim 1, teaches an apparatus for coupling (Pairing; Merriam-Webster Dictionary) wireless local area network (WLAN) signals between an internetworking device (Network Interface Cards, Repeaters/Hubs, Bridges, Switches, and Routers;<http://homepages.uel.ac.uk/u0116401/>) and a remotely located access point (Secondary Access Point; Glossary of Wireless and Wi-Fi Terms and Definitions) using a transport network (Twisted Pair Telephone Cabling; Claim 2 wording), the apparatus comprising: an access point coupled to the transport network for communicating with an internetworking device, the transport network further providing a power signal to power at least some components of the access point; the access point further comprising: a wireless local area network (WLAN) access point, for receiving wireless local area network signals from wireless computing equipment and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access point and converting such signals to transport modulated format signals suitable for transmission over the transport network.
5. A) It is unclear in Claim 1 as to the apparatus, does the apparatus couple an internetworking device and remotely located access point or does the apparatus

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comprised with an access point coupled to the transport network for communicating with an internetworking device.

6. With regards to Claim 2, wherein: the transport network is a twisted pair telephone cabling and the access point remote converter converts the local area network signals to a Digital Subscriber Line (xDSL) format.

A) It is unclear as to where power is provided to the transport network, so that the transport network can provide a power to power at least some components of the access point in Claim 1.

B) It is unclear what converts the local area network signal to the Digital Subscriber Line (xDSL) format. As stated in claim both the transport network and the access point remote converter are needed to convert the local area network signal to a (xDSL).

7. With regards to Claim 3, wherein the access point further comprises a power supply connected to be energized by the power signal from the transport network to supply power to at least some components of the access point.

A) It is unclear the placement of the power supply in the access point.

B) It is unclear as to the type of access point, the remotely located access point or the access point that is comprised in the apparatus of Claim 1.

8. With regards to Claim 4 wherein: the transport network is an optical fiber network and the access point remote converter converts the local area network signals to an optical wavelength compatible with the fiber network.

A) It is unclear as to the location of access point remote converter, the remotely located access point or the access point that is comprised in the apparatus of Claim 1.

9. With regards to Claim 5 wherein the access point further comprises a power supply connected to be energized by the power signal from the optical fiber network to supply power to at least some components of the access point.

A) It is unclear the placement of the power supply in the access point.

10. With regards to Claim 6 further comprising: a power inserter that inserts the power signal onto the transport network.

A) It is unclear the source of power that power inserter will insert.

11. With regards to Claim 7, apparatus comprising: a signal coupler that couples the power signal from the transport network to the access point.

A) It is unclear as to the type of access point, a remotely located access point or the access point that is comprised in the apparatus of Claim 1.

12. With regards to Claim 9, the apparatus of claim 1 further comprising: a head end access point, comprising: a head end remote bridge, connected to receive the transport modulated format signals from the transport network, and to convert such signals to data network compatible signals.

A) It is unclear the type of access point that the head end access point is a remotely located access point or the access point that is comprised in the apparatus of Claim 1.

B) It is unclear as to head end remote bridge and the internetworking device of Claim 1 as being the same equipment.

13. With regards to claim 10, the apparatus of claim 9, wherein the access point and head end access point use a cable modem to perform the transport modulation, conversion, and bridging functions.

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A) It unclear the location of the cable modem in relation to the apparatus of Claim 1 and the Internetworking device.

14. With regards to Claim 11, the apparatus of claim 9 additionally comprising a local area network hub, for receiving the data network compatible signals from the head end remote bridge, and forwarding such signals to the internetworking device.

I)According to the claims the apparatus of Claim 1 is comprised of the following:

A) Local Area Network Hub (Claim 11)

B) Head End Access Point (Claim 9)

C) Head End Remote Bridge (Claim 9)

D) Signal Coupler (Claim 7)

E) Power Inserter (Claim 6)

F) Power Supply (Claim 5 through Claim 4)

G) Power Supply (Claim 3 through Claim 2)

H) Access Point Remote Converter (Claim 2)

I) Access Point (Claim 1)

J) Wireless Local Area Network Access Point (Claim 1)

15. With regards to Claim 12, a distribution network for coupling wireless local area network signals between an internetworking device and a plurality of remotely located access points, to provide wireless local area network service within a geographic coverage area composed of microcells, the distribution network making use of available transport cabling, comprising: (a) a plurality of access points, each deployed with a respective one of the microcells and furthermore, each access point being coupled to

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available transport cabling for communicating with an internetworking device, the available transport cabling further providing a power signal to power at least some portions of the access point, the access points each further comprising: a wireless local area network access point, for receiving wireless local area network signals from computing equipment located within the respective microcell, and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access point and converting such signals to transport modulated format signals suitable for transmission over the available transport cabling.

A) It is unclear the termination points of distribution network's transport cabling.

B) It is unclear the source of the power signal that the transport cabling provides.

C) It is unclear the type of Access Points sited as the Plurality of Access Points.

D) It is unclear the location of Access Point Remote Converter for a Microcell.

16. With respect to Claim 13, a distribution network for coupling wireless local area network signals between an internetworking device and a plurality of remotely located access points, to provide wireless local area network service within a geographic coverage area composed of microcells, the distribution network making use of available transport cabling, comprising: a plurality of access points, each deployed with a respective one of the microcells and furthermore, each access point being coupled to available transport cabling for communicating with an internetworking device, the available transport cabling further providing a power signal to power at least some portions of the access point, the access points each further comprising: a wireless local

area network access point, for receiving wireless local area network signals from computing equipment located within the respective microcell, and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access point and converting such signals to transport modulated format signals suitable for transmission over the available transport cabling; and a head end access point, comprising: a head end remote bridge, connected to receive the transport modulated format signals from the transport cabling, and to convert such signals to local area network compatible signals.

- A) It is unclear the termination points of distribution network's transport cabling.
- B) It is unclear the source of the power signal that the transport cabling provides.
- C) It is unclear the type of Access Points sited as the Plurality of Access Points.
- D) It is unclear the location of Head End Access Point for a Microcell.
- E) It is unclear the location of Access Point Remote Converter for a Microcell.

Claim Rejections - 35 USC § 103

- 17. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menon et al. (US H2079H) as applied to claims 1, 12, and 13 above, and further in view of Wilson (US 2001/0036841).
- 18. With regards to Claim 1, Menon teaches an apparatus (System) for coupling wireless local area network (WLAN) signals between an internetworking device (Wireless Router; Column 4, Line 35) and a remotely located access point using a transport network (Column 4, Lines 42-43), the apparatus comprising: an access point

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coupled to the transport network for communicating with an internetworking device (Column 4, Line 42-49), the access point further comprising: a wireless local area network (WLAN) access point (Wireless Interface; Column 4, Lines 42-43), for receiving wireless local area network signals from wireless computing equipment (Subscribers: Column 3, Lines 49-53) and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access point and converting such signals to transport modulated format signals suitable for transmission over the transport network (Column 4, Lines 54-56).

However, Menon fails to teach the transport network further providing a power signal to power at least some components of the access point.

Where Wilson does teach a wireless modem that includes a power inserter (Claim 8) circuit to provide electrical power to a transverter via coaxial cable (Paragraph 0016).

It would have been obvious to one ordinary skill in the art at the time the applicant's invention was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.

19. With regards to Claim 2, Menon teaches an apparatus, wherein: the transport network is a twisted pair telephone cabling (Coupling; Column 4, Lines 19-21) and the access point remote converter converts the local area network signals to a Digital Subscriber Line (xDSL) format (Column 4, Lines 54-56).

20. With regards to Claim 3, Menon in view of Wilson teaches an apparatus, wherein the access point further comprises a power supply connected to be energized by the

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power signal from the transport network to supply power to at least some components (Paragraph 0016) of the access point.

21. With regards to Claim 4, Menon teaches an apparatus, wherein: the transport network is an optical fiber network (Coupling; Column 4, Lines 19-21) and the access point remote converter converts the local area network signals to an optical wavelength compatible with the fiber network (Column 4, Lines 54-56).

22. With regards to Claim 5, Menon in view of Wilson teaches an apparatus, wherein the access point further comprises a power supply connected to be energized by the power signal from the optical fiber network to supply power to at least some components of the access point (Paragraph 0016).

23. With regards to Claim 6, Menon in view of Wilson teaches an apparatus, further comprising: a power inserter that inserts the power signal onto the transport network (Paragraph 0016).

24. With regards to Claim 7, Menon in view of Wilson teaches an apparatus, further comprising: a signal coupler that couples the power signal from the transport network to the access point (Paragraph 0016).

25. With regards to Claim 8, Menon teaches an apparatus, wherein the transport network is an analog signal transport medium (Column 3, Lines 54-59).

26. With regards to Claim 9, Menon teaches an apparatus, further comprising: a head end access point, comprising: a head end remote bridge, connected to receive the transport modulated format signals from the transport network, and to convert such signals to data network compatible signals (Column 4, Lines 50-67).

27. With regards to Claim 10, Menon teaches an apparatus, wherein the access point and head end access point use a cable modem to perform the transport modulation, conversion, and bridging functions (Column 5, Lines 12-28).

28. With regards to Claim 11, Menon teaches an apparatus, additionally comprising a local area network hub, for receiving the data network compatible signals from the head end remote bridge, and forwarding such signals to the internetworking device (Wireless Router; Column 4, Lines 35-41) .

29. With regards to Claim 12, Menon teaches a distribution network (Communication System 10; Column 3, Line 34) for coupling wireless local area network signals between an internetworking device and a plurality of remotely located access points (Column 5, Lines 55-61), to provide wireless local area network service within a geographic coverage area (Public Land Mobile Networks; Column 5, Line 59) composed of microcells, the distribution network making use of available transport cabling, comprising: a plurality of access points, each deployed with a respective one of the microcells and furthermore, each access point being coupled to available transport cabling for communicating with an internetworking device (Column 6, Lines 28-35), the access points each further comprising: a wireless local area network access point, for receiving wireless local area network signals (Column 6, Lines 28-35) from computing equipment located within the respective microcell, and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access point and converting such signals to transport modulated format signals suitable for

transmission over the available transport cabling (Column 7, Lines 21-41).

However, Monen doesn't disclose the available transport cabling further providing a power signal to power at least some portions of the access point.

Where Wilson does teach a wireless modem that includes a power inserter (Claim 8) circuit to provide electrical power to a transverter via coaxial cable (Paragraph 0016).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.

30. With regards to Claim 13, Menon teaches a distribution network (Communication System 10; Column 3, Line 34) for coupling wireless local area network signals between an internetworking device and a plurality of remotely located access points (Column 5, Lines 55-61), to provide wireless local area network service within a geographic coverage area (Public Land Mobile Networks; Column 5, Line 59) composed of microcells, the distribution network making use of available transport cabling, comprising: a plurality of access points, each deployed with a respective one of the microcells and furthermore, each access point being coupled to available transport cabling for communicating with an internetworking device (Column 6, Lines 28-35), the access points each further comprising: a wireless local area network access point, for receiving wireless local area network signals from computing equipment located within the respective microcell (Column 6, Lines 28-35), and converting such signals to local area network compatible signals; and an access point remote converter, for receiving the local area network compatible signals from the wireless local area network access

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point and converting such signals to transport modulated format signals suitable for transmission over the available transport cabling (Column 7, Lines 21-41); and a head end access point, comprising: a head end remote bridge, connected to receive the transport modulated format signals from the transport cabling, and to convert such signals to local area network compatible signals (Column 4, Lines 50-67).

However, Monen doesn't disclose the available transport cabling further providing a power signal to power at least some portions of the access point.

Where Wilson does teach a wireless modem that includes a power inserter circuit to provide electrical power (Claim 8) to a transverter via coaxial cable (Paragraph 0016).

It would have been obvious to one ordinary skill in the art at the time the applicant's invention was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS E. SATKIEWICZ whose telephone number is (571)270-1948. The examiner can normally be reached on Monday to Thursday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E Satkiewicz/
Examiner, Art Unit 4183

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183